

What is claimed is:

1. A data distribution device comprising:

resending request responding means for receiving, from a receiving device having received a data stream composed of a plurality of transmission units and broadcasted by a broadcasting transmission system, a request to resend the data stream of some transmission units; and

resending means for resending the data stream of the transmission units via a two-way communication line.

2. A data distribution method of receiving, from a

receiving device having received a data stream composed of a plurality of transmission units and broadcasted by a broadcasting transmission system, a request to resend the data stream of some transmission units, and resending the data stream of the transmission units via a two-way communication line.

3. A data distribution device comprising:

resending request responding means for receiving, from a receiving device having received a data stream composed of a plurality of transmission units and broadcasted via a cable network, a request to resend the data stream of some transmission units; and

resending means for resending the data stream of the transmission units via a two-way cable network.

4. A data distribution method of receiving, from a receiving device having received a data stream composed of a plurality of transmission units and broadcasted via a cable network, a request to resend the data stream of some transmission units, and resending the data stream of the transmission units via a two-way cable network.

5. A data receiving device for receiving data broadcast broadcasted in one direction by means of a ground wave or a satellite wave, comprising:

receiving means for receiving a data stream composed of a plurality of transmission units appropriate for a specified broadcasting transmission system;

resending requesting means for requesting a data distribution device via a two-way communication line to resend any data stream of the transmission units which has not been properly received, and for receiving the data stream of the transmission units via the two-way communication line.

6. The data receiving device according to claim 5, further comprising storing means for storing any properly received data among the broadcasted data, and any data received via the two-way communication line among the data which was not properly received, by establishing associations between these data.

7. A data receiving method of receiving data broadcasted in one direction by means of a ground wave or a satellite wave, comprising the steps of:

receiving a data stream composed of a plurality of transmission units appropriate for a specified broadcasting transmission system;

requesting a data distribution device via a two-way communication line to resend any data stream of transmission units, which has not been properly received; and

re-receiving the data stream of the transmission units via the two-way communication line.

8. The data receiving method according to claim 7, further comprising a step of storing any properly received data among the broadcasted data, and any data received via the two-way communication line among the data which was not properly received, by establishing associations between these data.

9. A data receiving device for receiving a data stream broadcasted in one direction via a cable network, comprising:

receiving means for receiving a data stream composed of a plurality of transmission units; and

resending requesting means for requesting a data distribution device via a two-way cable network to resend any data stream of transmission units which has not been properly

received, and for receiving the data stream of the transmission units via the two-way cable communication network.

10. The data receiving device according to claim 9, further comprising storing means for storing any properly received data among the broadcasted data, and any data received via the two-way communication line among the data which was not properly received, by establishing associations between these data.

11. A receiving method of receiving a data stream broadcasted in one direction via a cable network, comprising the steps of:

receiving a data stream composed of a plurality of transmission units;

requesting a data distribution device via a two-way cable network to resend any data stream of transmission units which has not been properly received; and

re-receiving the data stream of the transmission units via the two-way cable communication network.

12. The data receiving method according to claim 11, further comprising the step of storing any properly received data among the broadcasted data, and any data received via the two-way communication line among the data which was not properly received, by establishing associations between these data.

13. A data distribution system comprising:

broadcasting means for converting content data to a data stream appropriate for a specified broadcasting transmission system, dividing the data stream into a plurality of transmission units, and broadcasting the content data to a plurality of receiving devices in one direction by the broadcasting transmission system; and

resending means for resending any data stream of transmission units which has not been properly received by the receiving device, to the receiving device via a two-way communication line if a resending request of the data stream is made from the receiving device via the two-way communication line.

14. The data distribution system according to claim 13, wherein the broadcasting means adjusts a transmission bit rate of the data stream according to a wireless environment.

15. A data distribution method comprising the steps of:

converting content data to a data stream appropriate for a specified broadcasting transmission system;

dividing the data stream into a plurality of transmission units, and broadcasting the content data to a plurality of receiving devices in one direction by the broadcasting transmission system; and

resending any data stream of transmission units which has not been properly received by the receiving device, to the receiving device via a two-way communication line if a resending request of the data stream is made from the receiving device via the two-way communication line.

16. The data distribution method according to claim 15, further comprising the step of adjusting a transmission bit rate of the data stream broadcasted to the receiving device, according to a wireless environment.

17. A data distribution system comprising:

broadcasting means for converting content data to a data stream appropriate for a specified broadcasting transmission system, dividing the data stream into a plurality of transmission units, and broadcasting the content data to a plurality of receiving devices in one direction via a cable network; and

resending means for resending any data stream of transmission units which has not been properly received by the receiving device, to the receiving device via a two-way cable network if a resending request of the data stream is made from the receiving device via the two-way cable network.

18. A data distribution method comprising the steps of:
converting content data to a data stream appropriate for

a specified broadcasting transmission system;

dividing the data stream into a plurality of transmission units, and broadcasting the content data to a plurality of receiving devices in one direction via a cable network; and

resending any data stream of transmission units which has not been properly received by the receiving device, to the receiving device via a two-way cable network if a resending request of the data stream is made from the receiving device via the two-way cable network.

19. A software program distribution device comprising:
receiving means for receiving a software download request from a receiving device having received software program update information broadcasted by a broadcasting transmission system; and

distribution means for distributing a software program corresponding to the update information to the receiving device via a two-way communication line.

20. A software program distribution method comprising the steps of:

receiving a software download request from a receiving device having received software program update information broadcasted by a broadcasting transmission system; and

distributing a software program corresponding to the update information to the receiving device via a two-way

software program update information which has been broadcasted, and requesting, via a two-way communication line, a data distribution device to download a software program corresponding to the broadcasted update information if it is necessary to update the software program already received, and downloading the software program via the two-way communication line.

24. A software program receiving method comprising the steps of:

receiving software program update information broadcasted in one direction by a broadcasting transmission system using a ground wave or a satellite wave;

comparing the software program update information which has been already received, with software program update information which has been broadcasted;

requesting, via a two-way communication line, a data distribution device to download a software program corresponding to the broadcasted update information if it is necessary to update the software program already received; and

downloading the software program via the two-way communication line.

25. A software program receiving device comprising:

receiving means for receiving software program update information broadcasted in one direction via a cable network;

and

downloading means for comparing the software program update information which has been already received, with software program update information which has been broadcasted, and requesting, via a two-way cable network, a data distribution device to download a software program corresponding to the broadcasted update information if it is necessary to update the software program already received, and downloading the software program via the two-way cable network.

26. A software program receiving method comprising the steps of:

receiving software program update information
broadcasted in one direction via a cable network;

comparing the software program update information which has been already received, with software program update information which has been broadcasted;

requesting, via a two-way cable network, a data distribution device to download a software program corresponding to the broadcasted update information if it is necessary to update the software program already received; and

downloading the software program via the two-way cable network.

27. The data distribution device according to claim 1 or 3, wherein the data stream broadcasted to the receiving

device is a software program converted into a specified transmission system.

28. The data distribution method according to any one of claims 4, 15, 16, and 18, wherein the data stream broadcasted to the receiving device is a software program converted into a specified transmission system.

29. The data receiving device according any one of claims 5, 6, 9, and 10, wherein the data stream broadcasted to the receiving device is a software program converted into a specified transmission system.

30. The data receiving method according to any one of claims 7, 8, 11, and 12, wherein the data stream broadcasted to the receiving device is a software program converted into a specified transmission system.

31. The data distribution system according to any one of claims 13, 14, and 17, wherein the data stream broadcasted to the receiving device is a software program converted into a specified transmission system.

32. A data receiving device comprising:

receiving means for receiving a content broadcasted in one direction by a broadcasting transmission system using

a ground wave or a satellite wave; and

display means for displaying a selection screen of the received content,

wherein, the data receiving device comprises display means for performing display processing to display a selection screen of the content to be updated in a different manner from a selection screen of the other received content while receiving data regarding the content to be updated.

33. A selection screen displaying method for displaying, at the time of displaying a selection screen of a received content which has been broadcasted in one direction by a broadcasting transmission system by means of a ground wave or a satellite wave, a selection screen of the content to be updated in a different manner from a selection screen of the other received content while receiving data regarding the content to be updated.

34. A data receiving device comprising:

receiving means for receiving a content broadcasted in one direction via a cable network; and

display means for displaying a selection screen of the received content,

wherein, the data receiving device comprises display means for performing display processing to display a selection screen of the content to be updated in a different manner from

a selection screen of the other received content while receiving data regarding the content to be updated.

35. A selection screen displaying method for displaying, at the time of displaying a selection screen of a received content which has been broadcasted in one direction via a cable network, a selection screen of the content to be updated in a different manner from a selection screen of the other received content while receiving data regarding the content to be updated.

36. A data receiving device comprising:

receiving means for receiving content distribution guide information broadcasted in one direction by a broadcasting transmission system using a ground wave or a satellite wave; and

display means for displaying a reception reservation guide screen by distinguishing any unreceived content from the received content if the content contained in the distribution guide information includes any unreceived content.

37. A reception reservation guide screen displaying method comprising the steps of:

receiving content distribution guide information broadcasted in one direction by a broadcasting transmission system using a ground wave or a satellite wave; and

